

IN THE CLAIMS:

This listing of the claims replaces all prior versions and listings of the claims in this application.

The text of all pending claims (including any withdrawn claims) is set forth below. Canceled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (Original), (Currently amended), (Canceled), (Withdrawn), (Previously presented), (New), and (Not entered).

Please CANCEL claims 4, 5, 14, 55, and 56 without prejudice or disclaimer, and AMEND claims 1, 6, 8-10, 13, 52, 57-60, 63, and 67 in accordance with the following:

1. (Currently amended) A content reproducing apparatus, comprising:
 - a data storage unit arranged to store data; and
 - a reading unit arranged to read data from a storage medium comprising audio/video (AV) data and a markup document used to reproduce the AV data in an interactive manner;
 - a presentation engine arranged to control the data storage unit according to a command program included in an input markup document,
 - wherein the presentation engine comprises:
 - a parser for verifying a syntax of the markup document;
 - a document object model (DOM) tree forming unit for receiving the markup document from the parser, for interpreting a structure of the markup document, and for extracting the command program included in the markup document; and
 - an interpreter for receiving the extracted command program included in the markup document from the DOM tree forming unit to control the data storage unit, such that transferring of information and sharing of system parameters related to AV data reproduction between different markup documents are enabled in the content reproducing apparatus;
 - wherein, according to the command program, the presentation engine generates cookie information comprising predetermined target information and stores the cookie information in the data storage unit; and
 - wherein the data storage unit comprises a non-volatile data storage portion and a volatile data storage portion, where according to cookie storage attribute information in the command

program, the presentation engine stores the cookie information in one of the non-volatile data storage portion and the volatile data storage portion.

2. (Previously presented) The content reproducing apparatus of claim 1, wherein the input markup document is read from the storage medium, or from a remote source, via a network.

3. (Original) The content reproducing apparatus of claim 1, wherein the command program is written in a script language.

4.-5. (Canceled)

6. (Currently amended) The content reproducing apparatus of claim-4_1, wherein the presentation engine incorporates content identification information into the cookie information and stores the cookie information in the data storage unit.

7. (Original) The content reproducing apparatus of claim 6, wherein the presentation engine searches the data storage unit for the cookie information with the same content identification information as input content identification information and reads the cookie information.

8. (Currently amended) The content reproducing apparatus of claim-4_1, further comprising:

a decoder decoding a read content,

wherein the command program is a command program which commands that predetermined target information be fetched from the decoder, commands the cookie information comprising the predetermined target information be generated, and commands the generated cookie information be stored in the data storage unit.

9. (Currently amended) The content reproducing apparatus of claim-4_1, wherein the command program is a command program which commands that the cookie information

comprising predetermined target information be generated and commands the generated cookie information be stored in the data storage unit.

10. (Currently amended) The content reproducing apparatus of claim-41, wherein the presentation engine receives data from a user, and the command program is a command program which commands that the cookie information comprising predetermined target information in the input data from the user be generated, and commands the generated cookie information be stored in the data storage unit.

11. (Original) The content reproducing apparatus of claim 1, wherein the command program comprises a cookie reference command program, where according to the cookie reference command program, the presentation engine searches the data storage unit for at least one cookie information item, and extracts the predetermined target information from the at least one cookie information item.

12. (Original) The content reproducing apparatus of claim 1, wherein the command program comprises a cookie deletion command program, where according to the cookie deletion command program, the presentation engine searches the data storage unit for at least one cookie information item and deletes corresponding cookie information.

13. (Currently amended) The content reproducing apparatus of claim-41, wherein the cookie information comprises at least first information defining a content reproducing apparatus using the cookie information, and second information indicating a path of a markup document using the target information, and the target information comprises a name identifying the target information and a value of the target information.

14. (Canceled)

15. (Original) The content reproducing apparatus of claim 6, wherein the cookie information comprises at least first information defining a content reproducing apparatus using the cookie information, and second information indicating a path of a markup document using

the target information, and the target information comprises a name identifying the target information and a value of the target information.

16. (Original) The content reproducing apparatus of claim 7, wherein the cookie information comprises at least first information defining a content reproducing apparatus using the cookie information, and second information indicating a path of a markup document using the target information, and the target information comprises a name identifying the target information and a value of the target information.

17. (Original) The content reproducing apparatus of claim 8, wherein the cookie information comprises at least first information defining a content reproducing apparatus using the cookie information, and second information indicating a path of a markup document using the target information, and the target information comprises a name identifying the target information and a value of the target information.

18. (Original) The content reproducing apparatus of claim 9, wherein the cookie information comprises at least first information defining a content reproducing apparatus using the cookie information, and second information indicating a path of a markup document using the target information, and the target information comprises a name identifying the target information and a value of the target information.

19. (Original) The content reproducing apparatus of claim 10, wherein the cookie information comprises at least first information defining a content reproducing apparatus using the cookie information, and second information indicating a path of a markup document using the target information, and the target information comprises a name identifying the target information and a value of the target information.

20. (Original) The content reproducing apparatus of claim 11, wherein the cookie information comprises at least first information defining a content reproducing apparatus using the cookie information, and second information indicating a path of a markup document using the target information, and the target information comprises a name identifying the target information and a value of the target information.

21. (Original) The content reproducing apparatus of claim 12, wherein the cookie information comprises at least first information defining a content reproducing apparatus using the cookie information, and second information indicating a path of a markup document using the target information, and the target information comprises a name identifying the target information and a value of the target information.

22. (Original) The content reproducing apparatus of claim 13, wherein the cookie information further comprises third information defining a duration of the cookie information.

23. (Original) The content reproducing apparatus of claim 13, wherein if cookie information having the same first information and second information, and the same name to identify the target information as the cookie information generated according to the cookie generation command program exists in the data storage unit, the presentation engine overwrites the cookie information in the data storage unit with the generated cookie information.

24. (Original) The content reproducing apparatus of claim 11, wherein, according to the cookie reference command program, the presentation engine searches the data storage unit for at least one cookie information item with predetermined content identification information and extracts the predetermined target information from the at least one cookie information item.

25. (Original) The content reproducing apparatus of claim 24, wherein the presentation engine searches for the cookie information having the same name to identify the target information as in the command program.

26–51. (Canceled)

52. (Currently amended) An information storage medium for use in an interactive digital content reproducing apparatus including a data storage unit, the information storage medium comprising:
audio/video (AV) data; and

a markup document which reproduces the AV data in an interactive manner, the markup document comprising a command program which, when the information storage medium is inserted into the content reproducing apparatus, is performed by the content reproducing apparatus to control the data storage unit included in the content reproducing apparatus, such that transferring of information and sharing of system parameters related to AV data reproduction between different markup documents are enabled in the content reproducing apparatus;

wherein the command program comprises a cookie generation command program, where the cookie generation command program performs control so that the content reproducing apparatus generates cookie information comprising predetermined target information and stores the cookie information in the data storage unit; and

wherein the data storage unit comprises a non-volatile data storage portion and/or a volatile data storage portion, and the cookie generation command program performs a control according to cookie storage attribute information in the cookie generation command program, where the content reproducing apparatus stores the cookie information in one of the non-volatile data storage portion and the volatile data storage portion.

53. (Original) The information storage medium of claim 52, wherein the command program comprises content identification information.

54. (Original) The information storage medium of claim 52, wherein the command program is written in a script language.

55.-56. (Canceled)

57. (Currently amended) The information storage medium of claim-~~56~~ 52, wherein the cookie generation command program performs a control so that the content reproducing apparatus generates cookie information comprising content identification information and stores the cookie information in the data storage unit.

58. (Currently amended) The information storage medium of claim-~~55~~ 52, wherein the cookie generation command program performs a control so that the content reproducing apparatus generates cookie information comprising predetermined target information fetched

from the decoder decoding the AV data and stores the cookie information in the data storage unit.

59. (Currently amended) The information storage medium of claim-~~55~~ 52, wherein the cookie generation command program performs a control so that the content reproducing apparatus generates cookie information comprising predetermined target information in the markup document.

60. (Currently amended) The information storage medium of claim-~~55~~ 52, wherein the cookie generation command program performs a control so that the content reproducing apparatus generates cookie information comprising predetermined target information in data input from a user and stores the cookie information in the data storage unit.

61. (Original) The information storage medium of claim 52, wherein the command program comprises a cookie reference command program, where the cookie reference command program performs control so that the content reproducing apparatus searches the data storage unit for at least one cookie information item and extracts predetermined target information from the at least one cookie information item.

62. (Original) The information storage medium of claim 52, wherein the command program comprises a cookie deletion command program, where the cookie deletion command program performs control so that the content reproducing apparatus searches the data storage unit for at least one cookie information item that matches the cookie information the cookie deletion command program commands to delete and deletes the at least one cookie information.

63. (Currently amended) The information storage medium of claim-~~55~~ 52, wherein the cookie generation command program performs control so that the content reproducing apparatus generates cookie information comprising first information defining the content reproducing apparatus using the cookie information, second information indicating a path of a markup document using the target information, and the target information, which is a name identifying the target information and a value of the target information.

64. (Original) The information storage medium of claim 63, wherein the cookie generation command program performs control so that the content producing apparatus generates the cookie information further comprising third information defining a duration of cookie information.

65. (Original) The information storage medium of claim 62, wherein the cookie information comprises first information defining the content reproducing apparatus using the cookie information, second information indicating a path of a markup document using the target information, and the target information, which is a name identifying the target information and a value of the target information, and the cookie reference command program performs control to search for the cookie information having the same first information, second information, and the name identifying the target information as in the cookie reference command program and to extract the value of the target information.

66. (Original) The information storage medium of claim 62, wherein the cookie information comprises first information defining the content reproducing apparatus using the cookie information, second information indicating a path of a markup document using the target information, and the target information, which is a name identifying the target information and a value of the target information, and the cookie deletion command program performs control to search for the cookie information having the same first information, second information, and the name identifying the target information as in the command program and to delete the searched cookie information.

67. (Currently amended) A computer readable medium having embodied thereon a program for reproducing interactive digital content in an interactive digital content reproducing apparatus including a presentation engine and a data storage unit, comprising:

- receiving a markup document comprising a predetermined command program;
- parsing to verify a syntax of the markup document;
- extracting the command program included in the markup document by interpreting a structure of the markup document; and
- controlling the data storage unit included in the content reproducing apparatus, according to the extracted command program included in the markup document, such that transferring of

information and sharing of system parameters related to AV data reproduction between different markup documents are enabled in the content reproducing apparatus;

wherein the controlling of the data storage unit comprises:

_____ according to the extracted command program, generating cookie information; and

_____ storing the generated cookie information in the data storage unit; and

wherein in the storing of the generated cookie information, the generated cookie information is stored in one of a non-volatile data storage portion and a volatile data storage portion of the data storage unit according to a cookie storage attribute value in the extracted command program.